

CLAIMS

1. A starting system for a single-phase induction motor, comprising: a stator having a running coil (11) and a starting coil (12); a power source (F) which supplies current to said running coil (11) and said starting coil (12); a running switch (S1) and a starting switch (S2), respectively connecting the running coil (11) and the starting coil (12) to the power source (F) when in a closed condition, said starting switch (S2) being conducted to an open condition upon completion of the motor start; and a control unit (30) supplied by the power source (F) and operatively connected to the running switch (S1) and the starting switch (S2) in order to instruct the open and closed conditions thereof, characterized in that said control unit (30) is programmed to operate the running switch (S1) in order to cause a delay in the supply of the current supplied to the running coil (11) in relation to the supply of the current supplied to the starting coil (12) during the motor start for a determined time interval which is previously defined and considered from the zero-crossing moment of the current supplied to the stator.
2. The system as set forth in claim 1, characterized in that each moment the supply current of the starting coil (12) reaches zero, the control unit (30) instructs the running switch (S1) to open, which condition is maintained during the determined time interval, after which the control unit (30) instructs the running switch (S1) to close.
3. The system as set forth in claim 1, characterized in that the delay in supplying the current to the running coil (11) is at maximum 90 degrees.
4. The system as set forth in claim 1, which includes a current sensor (20) connected between the power

source (F) and the stator and operatively connected to the control unit (30), characterized in that the current sensor (20) informs the control unit (30) each moment the current supplied to the stator reaches  
5 zero.

5. The system as set forth in claim 1, characterized in that at least the running switch (11) is a semiconductor.
6. The system as set forth in claim 5, characterized  
10 in that the running switch (11) is a triac.
7. The system as set forth in claim 1, characterized in that predetermined time interval ( $\Delta t$ ) is previously defined as a function of the constructive characteristics of the motor (10).